



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,170	03/17/2002	Masakazu Sagawa	NIT-336	9702
24956	7590	09/09/2004	EXAMINER	
MATTINGLY, STANGER & MALUR, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314			GUHARAY, KARABI	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/089,170	Applicant(s) SAGAWA ET AL.	
	Examiner Karabi Guharay	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-29 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7, 9, 30 and 32 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 8 and 31 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/27/02</u> . | 6) <input type="checkbox"/> Other: ____. |

Preliminary amendment, filed on 27 April 2002, has been entered and considered.

Specification

The disclosure is objected to because of the following informalities:

On last line of page 25, "bus lines 17" should read as "bus lines 18" to be consistent with Fig 19.

Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3 & 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of U.S. Patent No. 6617774.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 3 & 7 are anticipated by claim 2 of 6617774, since both disclose thin film electron emitter device, having plurality of electron source elements having a bottom electrode, an insulating layer and a top electrode, a plurality of bus electrodes comprising a thin film electrode connected to the top electrode and

thick film electrode provided on the thin film electrode having a film thickness thicker than that of the thin film.

Though claim 2 of the patent (# 6617774) does not disclose that electron source emits an electron from the surface of the top electrode when applying a positive voltage and bus electrodes applies drive voltage, however, it is the obvious method for operating thin film electron emitters.

Further limitation of "thick film formed by plating" is a method of making the device. The method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

Claims 2, 6 & 9 of this instant application are anticipated by claim 6 of patent 6617774.

Claims 30 & 32 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 10 of U.S. Patent No. 6617774. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 30 & 32 are anticipated by claim 10 of Patent # 6617774, because claim 10 of patent (6617774) discloses a display device having all the limitations except for the limitation of a frame glass, and the process limitations cited in claim 30 & 32 of instant application.

However, it is well known that a display device having two substrate separated by a distant forming a vacuum enclosure, obviously include a frame glass at the periphery of two substrates to provide a vacuum enclosure for the display device. Thus it would have been obvious to one having ordinary skill in the art at the time the

Art Unit: 2879

glass, which is an essential element for a vacuum enclosure of an electron emission display device.

Further process limitations are not given patentable weight since the method of forming the device is not germane to the issue of patentability of the device.

Allowable Subject Matter

Claims 10-29 are allowed over the prior art of record.

Claims 4-5, 8 & 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Examiner's Reasons for Allowance

The following is an examiner's statement of reason for allowance:

Regarding claims 18, 24 & 26, the prior art of record neither shows nor suggests an electron emitting device comprising all the claimed limitations of claims 18, 24, & 26, particularly comprising the limitation of thin film electrode having a film thickness that ranges from one tenth to ten times as thick as a film thickness of the electrode of the electron source and that is less than or equal to 20 nm, together with a thick film electrode electrically connected to the thin film electrode, thick film electrode having a thickness thicker than that of the thin film electrode.

Regarding claims 10, 14 & 21, the prior art of record neither shows nor suggests a method of manufacturing an electron emission device comprising all the claimed limitations of claims 10, 14 & 21, particularly selectively forming a thick film electrode on

Art Unit: 2879

the thin film electrode wherein the thick film electrode having a film thickness thicker than the thin film electrode.

Other Prior Art Cited

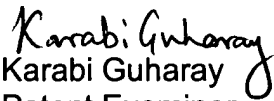
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure : Chuman et al. (US 6023124); Suzuki et al. (US 6608620); Kusunoki et al. (US 5936257).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Karabi Guharay
Patent Examiner
Art Unit 2879